

## PK Series

- Long life and high temperature, down size and high ripple current
- Load life 3,000 hours at 105°C



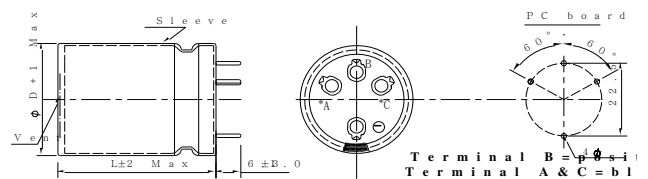
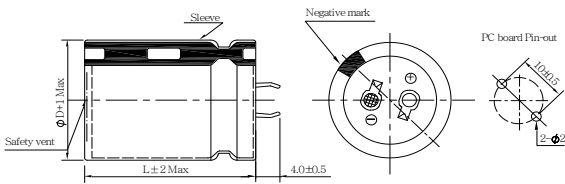
### SPECIFICATIONS

Item	Performance Characteristics																		
Category Temperature Range	-25 ~ +105°C																		
Working Voltage Range	200 ~ 500Vdc																		
Capacitance Range	56 ~ 2,200μF																		
Capacitance Tolerance	±20% (at 25°C and 120Hz)																		
Dissipation Factor (tanδ) (at 25°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>200</td> <td>220</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> </tr> <tr> <td>tanδ(Max)</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> </table>	Rated Voltage (V)	200	220	250	350	400	420	450	500	tanδ(Max)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20
	Rated Voltage (V)	200	220	250	350	400	420	450	500										
tanδ(Max)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20											
The above values should be increased by 0.02 for every additional 1000μF																			
Leakage Current	<p><math>I=0.02CV</math> or <math>3000\mu A</math>, whichever is smaller  <math>I</math> : Leakage current (μA)   <math>C</math> : Rated capacitance (μF)   <math>V</math> : Rated voltage (V)                      Impress the rated voltage for 5 minutes</p>																		
Low Temperature Characteristics Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>200~250</td> <td>350</td> <td>400</td> <td>420 ~ 450</td> <td>500</td> </tr> <tr> <td><math>Z(-25^{\circ}C)/Z(+20^{\circ}C)</math></td> <td>4</td> <td>4</td> <td>4</td> <td>8</td> <td>8</td> </tr> </table> <p style="text-align: right;">(at 120Hz)</p>	Rated voltage (V)	200~250	350	400	420 ~ 450	500	$Z(-25^{\circ}C)/Z(+20^{\circ}C)$	4	4	4	8	8						
Rated voltage (V)	200~250	350	400	420 ~ 450	500														
$Z(-25^{\circ}C)/Z(+20^{\circ}C)$	4	4	4	8	8														
Endurance	<p>The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 3,000 hours at 105°C</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≅ ±20% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≅ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≅ specified value</td> </tr> </table>	Capacitance change	≅ ±20% of the initial value	Dissipation factor(tanδ)	≅ 200% of the specified value	Leakage current	≅ specified value												
Capacitance change	≅ ±20% of the initial value																		
Dissipation factor(tanδ)	≅ 200% of the specified value																		
Leakage current	≅ specified value																		
Shelf Life	<p>The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 105°C without voltage applied.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≅ ±20% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≅ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≅ 200% of the specified value</td> </tr> </table>	Capacitance change	≅ ±20% of the initial value	Dissipation factor(tanδ)	≅ 200% of the specified value	Leakage current	≅ 200% of the specified value												
Capacitance change	≅ ±20% of the initial value																		
Dissipation factor(tanδ)	≅ 200% of the specified value																		
Leakage current	≅ 200% of the specified value																		
Others	Conforms to JIS-C-5101-4 (1998), characteristic W																		

### DIMENSIONS (mm)

Terminal Code : ND : Standard

Terminal Code :K6 (ø35)



### PART NUMBER SYSTEM( Example : 420V 470μF )

P K 2 S 4 7 1 M N D 3 5 4 5

Special Request

Size code(3545 : 35x45)

Terminal length code

Lead forming Type code

Capacitance tolerance code(M:±20%)

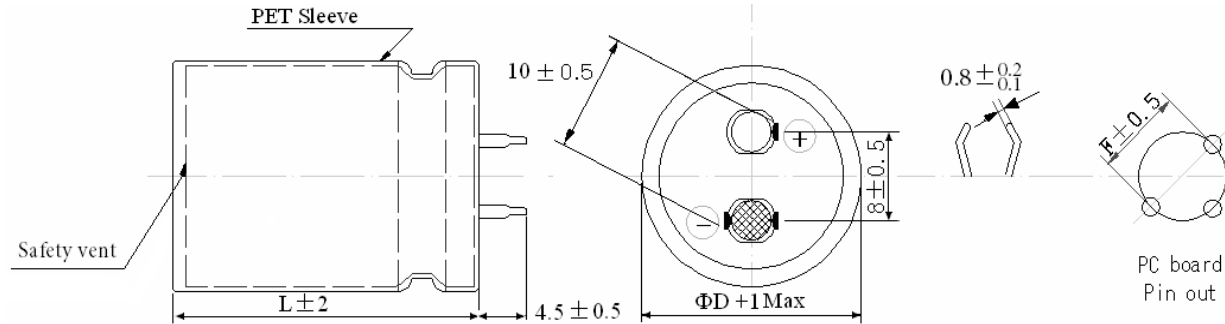
Capacitance code (470μF)

Voltage code (420V)

Series code (PK)

## Aluminum Electrolytic Capacitor

<b>Customer</b>	<b>Digi-Key</b>	<b>SERIES</b>	<b>PK</b>	<b>NO.:</b>	<b>PUBLISH DATE</b>	<b>2022-03-25</b>
-----------------	-----------------	---------------	-----------	-------------	---------------------	-------------------



No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (°C)	Tanδ @ 25°C (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 105°C 120Hz	Rated Ripple Current (mA rms) @ 105°C 100kHz	ESR @25°C (mΩ max/ 120Hz)	Impedance @20°C (mΩ max/ 100kHz)	Endurance @ 105°C (Hours)	Dimensions (mm)					Appearance Drawing No
															D Φ	L	a	d	F	
1	PK2G121MW42230RY	/	120 μF	±20%	400 V	/	-25~+105	/	/	770	/	/	/	3000	22	30	/	/	10	---

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Black. Suffix Y represents assembly without gasket.	张洪斌	曾爱娥	梁慧妍

## Aluminum Electrolytic Capacitor

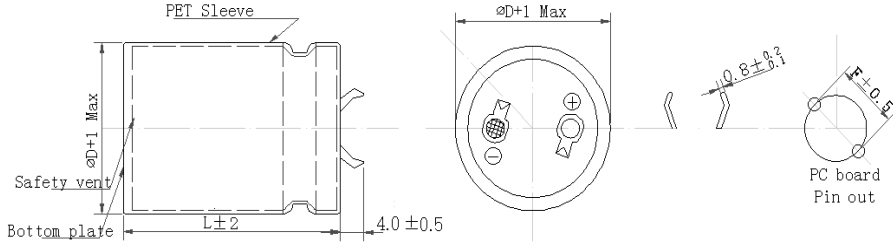
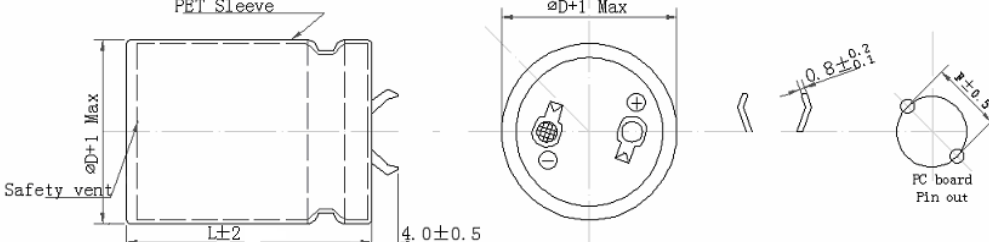
Customer	Digi-Key	SERIES	PK	NO.:	PUBLISH DATE	2022-03-25
						

FIG-1

FIG-2

No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (°C)	Tanδ @ 25°C (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 105°C 120Hz	Rated Ripple Current (mA rms) @105°C 100kHz	ESR @25°C (mΩ max/ 120Hz)	Impedance @20°C (mΩ max/ 100kHz)	Endurance @ 105°C (Hours)	Dimensions (mm)					Appearance Drawing No
															D Φ	L	a	d	F	
1	PK2W221MND2535E	/	220 μF	±20%	450 V	/	-25~+105	/	/	1520	/	1210	/	3000	25	35	/	/	10	FIG-1
2	PK2S221MND2545	/	220 μF	±20%	420 V	/	-25~+105	/	/	1200	/	/	/	3000	25	45	/	/	10	FIG-2
3	PK2D152MND3540	/	1500 μF	±20%	200 V	/	-25~+105	/	/	3340	/	/	/	3000	35	40	/	/	10	FIG-1
4	PK2D471MND2530	/	470 μF	±20%	200 V	/	-25~+105	/	/	1500	/	/	/	3000	25	30	/	/	10	FIG-1
5	PK2F471MND2551	/	470 μF	±20%	315 V	/	-25~+105	/	/	2000	/	/	/	3000	25	51	/	/	10	FIG-1
6	PK2G101MND2230	/	100 μF	±20%	400 V	/	-25~+105	/	/	700	/	/	/	3000	22	30	/	/	10	FIG-1
7	PK2W121MND2230	/	120 μF	±20%	450 V	/	-25~+105	/	/	720	/	/	/	3000	22	30	/	/	10	FIG-1
8	PK2W101MND2230RY	/	100 μF	±20%	450 V	/	-25~+105	/	/	1300	/	/	/	3000	22	30	/	/	10	FIG-2
9	PK2W680MND2225R	/	68 μF	±20%	450 V	/	-25~+105	/	/	600	/	/	2230	3000	22	25	/	/	10	FIG-1
10	PK2E471MND2535	/	470 μF	±20%	250 V	/	-25~+105	/	/	1650	/	430	/	3000	25	35	/	/	10	FIG-1
11	PK2E102MND3040R	/	1000 μF	±20%	250 V	/	-40~+105	/	/	3060	/	/	156	3000	30	40	/	/	10	FIG-1



# Taiwan Chinsan Electronic Ind., Co., Ltd.

Address: No.1, Alley 11, Lane 68, Sec.1, KwangFu Rd., SanChung Dist., New Taipei City 24158, Taiwan

TEL: +886 2 2995 0535 <http://www.chinsan.com/products/>

12	PK2W121MND2230R	/	120 μF	±20%	450 V	/	-25~+105	/	/	820	/	/	/	3000	22	30	/	/	10	FIG-1
13	PK2D102MND3035	/	1000 μF	±20%	200 V	/	-25~+105	/	/	1975	/	/	/	3000	30	35	/	/	10	FIG-1
14	PK2W561MND3045Y	/	560 μF	±20%	450 V	/	-25~+105	/	/	2240	/	420	290	3000	30	45	/	/	10	FIG-2
15	PK2W331MND2545RY	/	330 μF	±20%	450 V	/	-25~+105	/	/	1700	/	/	460	3000	25	45	/	/	10	FIG-2
16	PK2G221MND3025	/	220 μF	±20%	400 V	/	-25~+105	/	/	1100	/	/	/	3000	30	25	/	/	10	FIG-1
17	PK2W331MND3040ER	/	330 μF	±20%	450 V	/	-25~+105	/	/	1600	/	250	/	3000	30	40	/	/	10	FIG-1
18	PK2H101MND2230Y	/	100 μF	±20%	500 V	/	-25~+105	/	/	650	/	/	/	3000	22	30	/	/	10	FIG-2
19	PK2F681MND3050	/	680 μF	±20%	315 V	/	-25~+105	/	/	2170	/	/	/	3000	30	50	/	/	10	FIG-1
20	PK2H680MND2225RY	/	68 μF	±20%	500 V	/	-25~+105	/	/	600	/	/	/	3000	22	25	/	/	10	FIG-2
21	PK2W391MND2553	/	390 μF	±20%	450 V	/	-25~+105	/	/	2300	/	480	/	3000	25	53	/	/	10	FIG-1
22	PK2W681MND3050RY	/	680 μF	±20%	450 V	/	-25~+105	/	/	2500	/	/	400	3000	30	50	/	/	10	FIG-2
23	PK2W221MND3030R	/	220 μF	±20%	450 V	/	-25~+105	/	/	1360	/	900	550	3000	30	30	/	/	10	FIG-1
24	PK2E152MND3551RP	/	1500 μF	±20%	250 V	/	-25~+105	/	/	3000	/	160	/	3000	35	51	/	/	10	FIG-1
25	PK2W151MND2530RY	/	150 μF	±20%	450 V	/	-25~+105	/	/	1100	/	/	/	3000	25	30	/	/	10	FIG-2
26	PK2W151MND2235Y	/	150 μF	±20%	450 V	/	-25~+105	/	/	920	/	1770	/	3000	22	35	/	/	10	FIG-2
27	PK1K332MND3035	/	3300 μF	±20%	80 V	/	-25~+105	/	/	2780	/	/	/	3000	30	35	/	/	10	FIG-1
28	PK2G471MND2550	/	470 μF	±20%	400 V	/	-25~+105	/	/	1450	/	/	/	3000	25	50	/	/	10	FIG-1
29	PK2S271MND2540Y	/	270 μF	±20%	420 V	/	-40~+105	/	/	1250	/	/	/	3000	25	40	/	/	10	FIG-2
30	PK2W181MND2245	/	180 μF	±20%	450 V	/	-25~+105	/	/	850	/	/	/	3000	22	45	/	/	10	FIG-1

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Black. Suffix Y represents assembly without gasket.	张洪斌	曾爱娥	梁慧妍